



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

11.7

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/776,308      | 02/12/2004  | Yuji Mizuguchi       | 2004_0204A          | 3542             |

513 7590 03/26/2007  
WENDEROTH, LIND & PONACK, L.L.P.  
2033 K STREET N. W.  
SUITE 800  
WASHINGTON, DC 20006-1021

|          |
|----------|
| EXAMINER |
|----------|

TAYONG, HELENE E

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2609

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/26/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/776,308

Applicant(s)

MIZUGUCHI ET AL.

Examiner

Helene Tayong

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/4/04, 2/12/04</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

2. Claim 7 is objected to because of the following informalities:

In line 3, a space should be inserted between each word of "the ring network".

In line 5, the examiner suggest changing the following:

"a result of the multiplication: [a number obtained by subtracting one from the number of data transmission apparatuses in the ring network] x [an amount of time required before the transmission stopping means is able to stop transmission of the data signal after the inputting of the data signal to the signal determination means stops]."

Should be changed to

--a result of the multiplication between a number obtained by subtracting one from the number of data transmission apparatuses in the ring network and an amount of time required before the transmission stopping means is able to stop transmission of the data signal after the inputting of the data signal to the signal determination means stops.--

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakajima et al (US 6504823).

As shown in fig.1, 2 and 5 Nakajima et al. discloses a data transmission apparatus comprising:

(1) With regards to claim 1;

(a) signal determination means for determining a presence or absence of a data signal (**traffic**) from an immediately upstream data transmission apparatus in the ring network based on an amplitude of the data signal (fig 5, step11, col. 5, lines 3-11);

(b) data evaluation means for evaluating a data value of the data signal from the immediately upstream data transmission apparatus (fig. 5, step13-step17,col. 5, col.6, lines 3-19);

(c) processing means for performing a process for a result of evaluation by the data evaluation means in accordance with the predetermined protocol (fig. 5, step19, col.6, lines 64-67 and clo.7, lines 1-9); and

(d) evaluation stopping means for causing the data evaluation means to stop outputting a result of evaluation to the processing means if the signal determination

Art Unit: 2609

means determines that there is no incoming data signal (fig.5, step 23, col. 7, lines 9-15).

(2) With regards to claim 2;

(a) transmission means for transmitting the data signal to an immediately downstream data transmission apparatus ( fig. 2, 27, col.5 , lines 42-45) and( fig. 5 ,step 13); and

(b) transmission stopping means for causing the transmission means to stop transmitting the data signal to the immediately downstream data transmission apparatus if the signal determination means determines that there is no incoming data signal (fig.5, step 23, col. 7, lines 9-15).

(3) With regards to claim 11;

(a) signal determination means for determining a presence or absence of a data signal from an immediately upstream data transmission apparatus in the ring network based on an amplitude of the data signal (fig 5, step11, col. 5, lines 3-11);

(b) data evaluation means for evaluating a data value of the data signal from the immediately upstream data transmission apparatus (fig. 5, step13-step17,col. 5, col.6, lines 3-19);

(c) processing means for performing a process for a result of evaluation by the data evaluation means in accordance with the predetermined protocol (fig. 5, step19, col.6, lines 64-67 and clo.7, lines 1-9); and

(d) evaluation stopping means for causing the data evaluation means to stop outputting a result of evaluation to the processing means if the signal determination

Art Unit: 2609

means determines that there is no incoming data signal (fig.5, step 23, col. 7, lines 9-15).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. in view of Umei et al (US 2006/0155816 A1).

(1) With regards to claim 3 ;

Nakajima et al. discloses subject matter disclosed above but fails to teach

(a) threshold level storage means for storing a threshold signal level; and

(b) level comparison means for determining a presence or absence of the data signal by comparing the level of the electrical signal extracted by the signal extraction means against the threshold signal level stored in the threshold level storage means.

(i) Regarding item (a) above,

Umei et al. in the same field of endeavor, teaches threshold level storage means for storing a threshold signal level (Fig. 8, 215 and 235, pg.8, [0106], lines 5-9); and

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add threshold level storage means of Umei et al's to the apparatus of Nakajima et al to determine the actual value used for the test. The

Art Unit: 2609

motivation to combine Umei et al's means with that of Nakajima et al was to avoid complicated algorithms to be used to determine the presence or absence of a signal (bandwidth value) (col. 2, lines 48-55).

(ii) Regarding item (b) above,

Umei et al. in the same field of endeavor, teaches level comparison means for determining a presence or absence of the data signal by comparing the level of the electrical signal extracted by the signal extraction means against the threshold signal level stored in the threshold level storage means (pg. 8, [[0106], lines 1-9 to [0109] lines 1-9)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the comparison means of Umei et al 's to the apparatus of Nakajima et al in order to accurately sort out valid data from any other data that might be transmitted in the process of testing. The motivation to combine Umei et al's means with that of Nakajima et al was to improve on the efficiency of data transfer in order to avoid loss of information for certain connections.

(2) With regards to claim 4;

Nakajima et al. discloses subject matter disclosed above but fails to teach

(a) read means for reading out, as a digital data value, a signal obtained by modulating the electrical signal of the predetermined frequency; and

(b) difference value detection means for detecting a difference value by subtracting, from the digital data value currently read out by the read means, a digital data value immediately previously read out by the read means, wherein the signal

Art Unit: 2609

determination means determines presence or absence of the data signal based on the difference value detected by the difference value detection means .

(i) regarding item (a) above;

Umei et al. in the same field of endeavor, teaches read means for reading out, as a digital data value, a signal obtained by modulating the electrical signal of the predetermined frequency (pg. 8, [0104], lines 1-7); and

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the read means of Umei et al.'s to the apparatus of Nakajima et al in order to accurately sort out valid data from any other data that might be transmitted in the process of testing. The motivation to combine Umei et al's means with that of Nakajima et al was to improve on the efficiency of data transfer in order to avoid loss of information for certain connections.

(ii) regarding item (b) above;

Umei et al. in the same field of endeavor, teaches level comparison means for determining a presence or absence of the data signal by comparing the level of the electrical signal extracted by the signal extraction means against the threshold signal level stored in the threshold level storage means (pg. 8, [[0105-[0106], lines 1-9 to [0109] lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the level comparison means of Umei et al 's to the apparatus of Nakajima et al in order to accurately sort out valid data from any other data that might be transmitted in the process of testing. The motivation to combine Umei et



Art Unit: 2609

al's means with that of Nakajima et al was to improve on the efficiency of data transfer in order to avoid loss of information for certain connections.

(3) With regards to claim 5;

Nakajima et al. discloses subject matter disclosed above but fails to teach

(a) difference value storage means for storing a threshold difference value; and

(b) difference comparison means for determining a presence or absence of the data signal by comparing the difference value detected by the difference value detection means against the threshold difference value stored in the difference value storage means.

(i) Regarding item (a) above,

Umei et al. in the same field of endeavor, teaches difference value storage means for storing a threshold difference value (Fig. 8, 215 and 235, pg.8, [0106], lines 5-9); and

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add difference value storage means of Umei et al's to the apparatus of Nakajima et al to determine the actual value used for the test. The motivation to combine Umei et al's means with that of Nakajima et al was to avoid complicated algorithms to be used to determine the presence or absence of a signal (bandwidth value) (col. 2, lines 48-55).

(ii) Regarding item (b) above,

Umei et al. in the same field of endeavor, teaches difference comparison means for determining a presence or absence of the data signal by comparing the difference

Art Unit: 2609

value detected by the difference value detection means against the threshold difference value stored in the difference value storage means.

(pg. 8, [[0106], lines 1-9 to [0109] lines 1-9)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the difference comparison means of Umei et al 's to the apparatus of Nakajima et al in order to accurately sort out valid data from any other data that might be transmitted in the process of testing. The motivation to combine Umei et al's means with that of Nakajima et al was to improve on the efficiency of data transfer in order to avoid loss of information for certain connections.

(4) With regards to claim 10;

Nakajima et al. discloses subject matter disclosed above but fails to teach wherein the predetermined protocol is MOST (Media Oriented Systems Transport).

However, Umei et al in the same field of endeavor, teaches wherein the predetermined protocol is MOST (Media Oriented Systems Transport) ( fig. 1, col. 3, lines 28-31) in order to ensure all the data is being transmitted from the source to the right destination.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the predetermined protocol of Umei et al.'s to the apparatus of Nakajima et al. to check for errors during transmission. The motivation to combine Umei et al's predetermined protocol, MOST (Media Oriented Systems Transport) to the apparatus of Nakajima et al was to reduce interference of signals.

***Allowable Subject Matter***

7. Claims 6,7,8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest a reset means for suspending transmission and reception of the data signal for a predetermined period if the signal determination means determines that there is no incoming data signal.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Becker et al (US 2002/0110132A1) discloses method for efficiently managing channels in a network such as implementing the commercially - available Media Oriented System Transfer (MOST) network standard.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Tayong whose telephone number is 571-270-1675. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lui Shuwang can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helene Tayong

3/16/07



**SHUWANG LIU**  
**SUPERVISORY PATENT EXAMINER**